

# Economics of Strengthening & Redeveloping Provincial Heritage Buildings for Adaptive Reuse Purposes

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## Background

- The Adaptive Reuse approach [1,2] focuses on changing the use of an existing building to enable it to serve a new function based on the current needs of the owner and the host community, in order to preserve its desired features.



- Studies on seismic risk mitigation [3] and town centre regeneration [4], have identified economic, social, environmental, cultural, and regulatory factors that could strongly control the viability of achieving seismic resilience and sustainability by using the adaptive reuse approach [5].

- However, understanding the effectiveness of using the adaptive reuse approach to balance the varying objectives of seismic resilience, economic sustainability, built heritage preservation, and building demand, towards achieving a resilient and sustainable town centre living, remains a major challenge for most decision makers in New Zealand.

## Objectives

This study seeks to address the following research objectives, for the purpose of facilitating an empirical and rational investigation into the research problem:

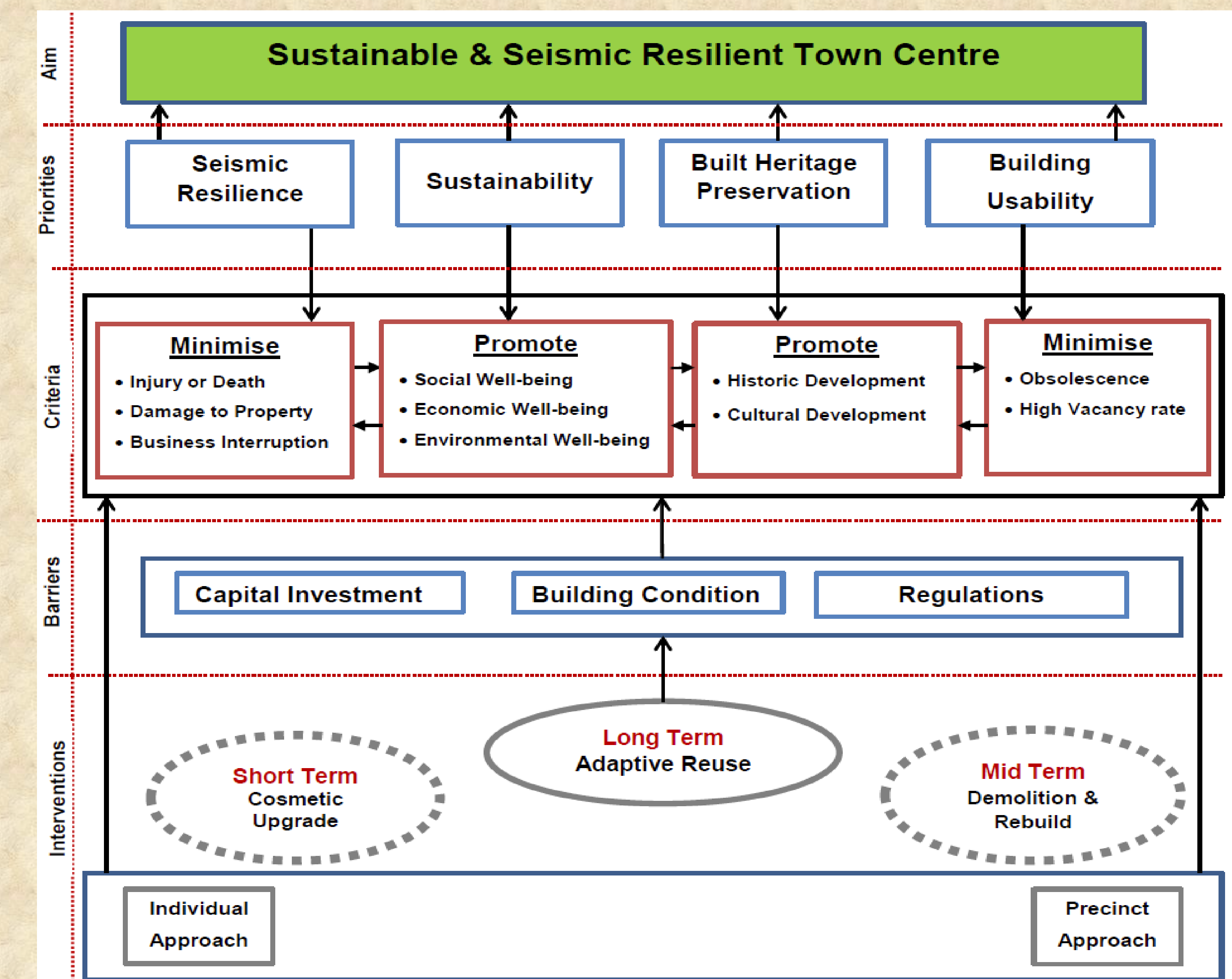
1. To examine the benefits of adaptive reuse, and to select optimal case study buildings suitable for adaptive reuse purposes.
2. To investigate the critical opportunities and risk factors that could influence a successful adaptive reuse implementation for selected case study buildings.



## Methods

- Focus group interview with relevant stakeholders
- Analysis of existing documents of selected cases
- Face-to-face interviews with subject matter experts

## Conceptual Framework



## Outcome

- Provide building owners and relevant stakeholders of the selected case study buildings, additional evidence-based information upon which to justify investment choices.
- Develop a strategic framework that will guide local authorities in balancing the cost-effectiveness of investing in the adaptive reuse approach to promote seismic resilience, economic sustainability, built heritage preservation, and building demand, towards achieving a resilient and sustainable town centre living.
- The framework will be transferable to other New Zealand local councils that are also striving to revitalise their town centres.

## Key References

1. Douglas, J. (2006). *Building adaptation* (Second ed.): Routledge.
2. Wilkinson, S. J., James, K., & Reed, R. (2009). Using building adaptation to deliver sustainability in Australia. *Structural Survey*, 27(1), 46-61.
3. Egbelakin, T., Wilkinson, S., Potangaroa, R., & Ingham, J. (2011). Enhancing seismic risk mitigation decisions: a motivational approach. *Construction Management and Economics*, 29(10), 1003-1016.
4. Roberts, P., Sykes, H., & Granger, R. (2016). *Urban regeneration*: Sage.
5. Bullen, P. A., & Love, P. E. (2009). Residential regeneration and adaptive reuse: learning from the experiences of Los Angeles. *Structural Survey*, 27(5), 351-360.

